- (c) contacting at least a portion of said volatilized volume with a sensor element, wherein said volume does not contact a substantially sorbent material before contacting said sensor element; and Sur page 5, lines 3-12
- (d) monitoring a signal from the sensor element wherein said signal comprises the response of said sensor to a temporally-determined variation in the concentration of said vapor at said sensor surface.

14. (Amended) The method of claim 13, wherein said inert carrier gas is flowing through said vapor delivery line at a rate of between about 1 mL/min and about 1000 mL/min.

Please add new claims 37-45.

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- 37. (New) A method for rapidly screening volatile substances in a sample, the method comprising the steps of:
 - (a) Introducing a volume of the sample into a vapor delivery line;
- (b) volatilizing at least a portion of said volume as said volume is carried through said vapor delivery line;
- (c) contacting at least a portion of said volatilized volume with a sensor element, wherein said volume does not contact a substantially sorbent material before contacting said sensor element; and
 - (d) monitoring a signal from the sensor element as a function of time.
- 38. (New) The method of claim 37, wherein said volume is carried through said vapor delivery line by an analyte-free carrier gas.

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39. (New) The method of claim 38, further comprising the step of controlling the flow of said analyte-free carrier through said vapor delivery line with flow controllers in communication with a computer.

- 40. (New) The method of claim 37, further comprising purging the system to remove any remaining analyte vapors prior to introduction of a second sample into said vapor delivery line.
- 41. (New) The method of claim 37, wherein the sensor element is coated with a chemically sensitive material to form a chemically sensitive film proximate the surface of the sensor element.
- 42. (New) The method of claim 37, wherein said sensor comprises a quartz crystal.
- 43. (New) The method of claim 37, wherein step (c) comprises contacting at least a portion of said volatilized volume with an array of sensor elements.
- 44. (New) The method of claim 37, wherein said sensor element is an optical element.
- 45. (New) The method of claim 37, wherein said sensor element is an electrochemical element

In the Specification

On page 6, please replace the second full paragraph with the following:

The output frequency of each sensor element is monitored by corresponding frequency counters 60 and stored in computer 70. In alternative embodiments, computer 70 can control the flow of the carrier gas through flow controllers 80, which regulate gas flow through both carrier stream line 90 and purge stream line 100. To allow for adequate evaporation upstream of sensor 50, carrier stream flow is preferably between about 1 mL/min and about 1000 mL/min and more preferably between about 150 mL/min and about 500 mL/min. Vapors exit the apparatus through exit port 110.

